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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/799,510	03/12/2004	ChoonHoe Koh	STL11595	1740

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EXAMINER

OLSON, JASON C

ART UNIT	PAPER NUMBER
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2627

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	02/09/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/799,510

Applicant(s)

KOH ET AL.

Examiner

Jason C. Olson

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 November 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8, 10-14, 17-22, 24, 30, 32 and 34-36 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-8, 10 and 30 is/are allowed.
- 6) ☒ Claim(s) 11-14, 17-22, 24, 32 and 34-36 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

The allowability of claims 11-14, 17-22, 24, and 32, as stated in the previous office action, in currently withdrawn.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 11-14, 17-22, 24, 32, and 34-36 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 11 recites, “generating a digital indication of a position of a transducer prior to the spinning up step in relation to an actuator motion pattern determined in relation to the applying step and a back electromotive force measured across a voice coil motor” in lines 4-6. The relationship between the motion pattern and the applying step and the back electromotive force measured across a voice coil is not defined in the claim, so therefore the claim is indefinite because this relationship is necessary to generate the digital indication. The relationship between the position of the transducer and the actuator motion pattern is not defined in the claim, so therefor the claim is indefinite because this relationship, as well, is necessary to generate the digital indication. The examiner is unable to ascertain the step of generating a digital indication of a position of a transducer because the relationships that are necessary for the generation are not distinctly claimed. Therefore, the examiner will examine the claims based solely on the steps given and not on the relationships between the steps.

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Claim 11 recites the term, “generating a digital indication of a position” in line 1 of the claim. The examiner does not understand what a digital indication is because it is data or information that provides the indication. The examiner suggests that the claim be amended to recite, “generating digital data that indicates a position”.

Claim 34 recites a structure comprising “an actuator”, “a transducer”, and “a position detector”. Furthermore, the position detector is “configured to determine a former position of the transducer in relation to a latter motion pattern of the actuator”. The recitation that an element is “configured to” perform a function is not a positive limitation but only requires the ability to so perform. It does not constitute a limitation in any patentable sense, so the claim is considered indefinite for not positively pointing out how the position detector is configured to perform the recited function. As such, the examiner will only treat the positively recited limitations in the claim.

Claim 35 recites the limitation “the voice coil” in line 1 of the claim. There is insufficient antecedent basis for this limitation in the claim.

Claim 36 recites a structure comprising “a programmable processor configured to spin-up..., detect..., and generate...”. The recitation that an element is “configured to” perform a function is not a positive limitation but only requires the ability to so perform. It does not constitute a limitation in any patentable sense, so the claim is considered indefinite for not positively pointing out how the processor is configured to perform the recited functions. As such, the examiner will only treat the positively recited limitations in the claim.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 34-36 are rejected under 35 U.S.C. 102(e) as being anticipated by Hirano et al. (US 6,754,027), hereafter “Hirano”. The claims are being examined as indicated in the above section.

Regarding claim 34, Hirano teaches an actuator supporting a transducer (see figure 1B, items 4 and 5); and a position detector (see col. 11, ln. 2-14; the distance judging part 54 is a position detector).

Regarding claim 35, Hirano teaches a voice coil configured to provide a voltage to the position detector that includes a back-electromotive force component indicative of a movement of the voice coil across a magnetic field (see col. 11, ln. 46-60 and col. 19, ln. 16-25).

Regarding claim 36, Hirano teaches the position detector comprises a programmable processor (see col. 7, ln. 10-48, col. 11, ln. 2-14, and figure 2; the distance judging part 54 part is controlled by the micro-processor unit (MPU) 25. It is inherent that the processor is programmable in order for it to know how and what to process).

Allowable Subject Matter

Claims 1-8, 10, and 30 are allowable over the prior art of record for the reasons given in the previous office action.

Claim 11 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action.

Claims 12-14, 17-22, 24, and 32 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Response to Arguments

Applicant's arguments with respect to claims 34-36 have been considered but are moot in view of the new ground(s) of rejection. Claims 34-36 are rejected under 35 U.S.C. 112, second paragraph.

With regard to claim 11, the relationship claimed between the motion pattern and the applying step and the back electromotive force measured across a voice coil and the relationship claimed between the position of the transducer and the actuator motion pattern needs to be defined in the claims because the relationships are necessary to generating an indication signal. Without the understanding of the relationships, the method of "generating a digital indication" cannot be understood.

With regards to claims 34-36, the recitation that an element is "configured to" perform a function is not a positive limitation but only requires the ability to so perform. It does not constitute a limitation in any patentable sense.

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Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jason C. Olson whose telephone number is (571)272-7560. The examiner can normally be reached on Monday thru Thursday 7:30-5:30; alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrea L. Wellington can be reached on (571)272-4483. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JCO


TAN DINH
PRIMARY EXAMINER

2/02/07